Impatica for Director

Users Manual

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Impatica for Director Users Manual

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Impatica for Director User's Manual.

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1 Introduction

Welcome to the wonderful world of plug-in free interactive rich streaming media.

This User's Guide explains everything you need to know about using **Impatica for Director** to transform existing or newly developed Macromedia Director™ movies for delivery over the Internet without plug-ins and at low bandwidth.

Why use **Impatica for Director**? Or more to the point, why not use Shockwave™ or Director's own "Save-as-Java"? That's really two distinct questions with two distinct answers.

Shockwave is certainly an impressive capability with a lot of great branding and market acceptance. Unfortunately, Shockwave files are large - often too large to be delivered over the Internet or through e-mail at normal connection speeds. However, the major problem with Shockwave is that it requires a plug-in. Many potential viewers of your content won't have the plug-in or perhaps the correct version of the plug-in. And if they do not, they may not be willing to download it. Or perhaps they are behind a firewall or working within a corporation's security policy that does not permit plug-ins. Or maybe they are running Solaris or Linux or OS/2 or using a set-top box, none of which are supported by plug-ins.

There are many reasons why more and more Internet users are fed up with plug-ins. The real question is simply this: "Do you want to restrict access to your content to only those people that have the correct version of a plug-in and the patience and know-how to maintain it, or do you want to make your content available to everyone?"

Macromedia Director also offers a plug-in free solution, the "Save-as-Java" Xtra. The advantage of **Impatica for Director** over Save-as-Java is simply performance. Our player applet and the converted movie size are both substantially smaller than the corresponding Save-as-Java components. That means, with **Impatica for Director**, you can deliver fully narrated interactive content plug-in free at connection speed as low as 28.8 kbps. Save-as-Java cannot.

This Users Guide is not intended to teach you how to use Director or Lingo. We presume that you already have an adequate knowledge in that area.

Here is what it does cover:

- What **Impatica for Director** is, how to install it, how to run it, how it works and how to publish your content to the web or deliver it through e-mail;
- A list of Director features that are supported by **Impatica for Director**, and those that are not. In some cases, we even provide suggestions for working around the unsupported Director features;

2 What is Impatica for Director?

Impatica for Director is a software tool that allows Macromedia Director movies to be played over the Internet or corporate intranets without plug-ins and even at modem speeds as low as 28.8 kbps. **Impatica for Director** reads and interprets the Director file and produces a compressed file that can be streamed over the Internet. **Impatica for Director** extracts the various text, graphic, audio and scripting elements and their attributes and, where possible, converts them into a more efficient format for web delivery.

The new "**Impatica**" file (with the extension ".imp") can then be read by **Impatica's** Java Player applet ("ImPlayer250") and played in real time while the file is streaming over the Internet.

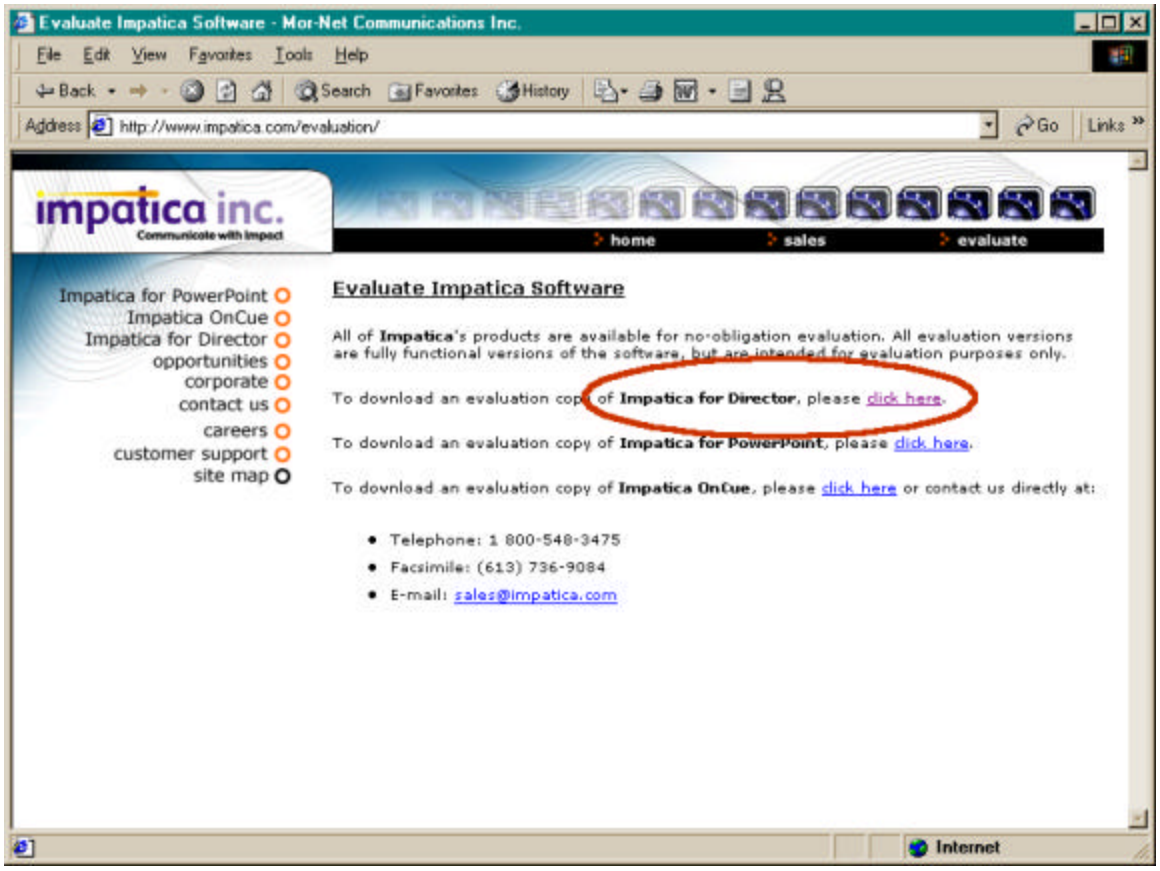
Once you have created the **Impatica for Director** version of your movie, it can be played from any HTML web page or can be embedded within an e-mail message. No special server side software is required.

- There is no requirement for Director to be installed on the system running **Impatica for Director**.

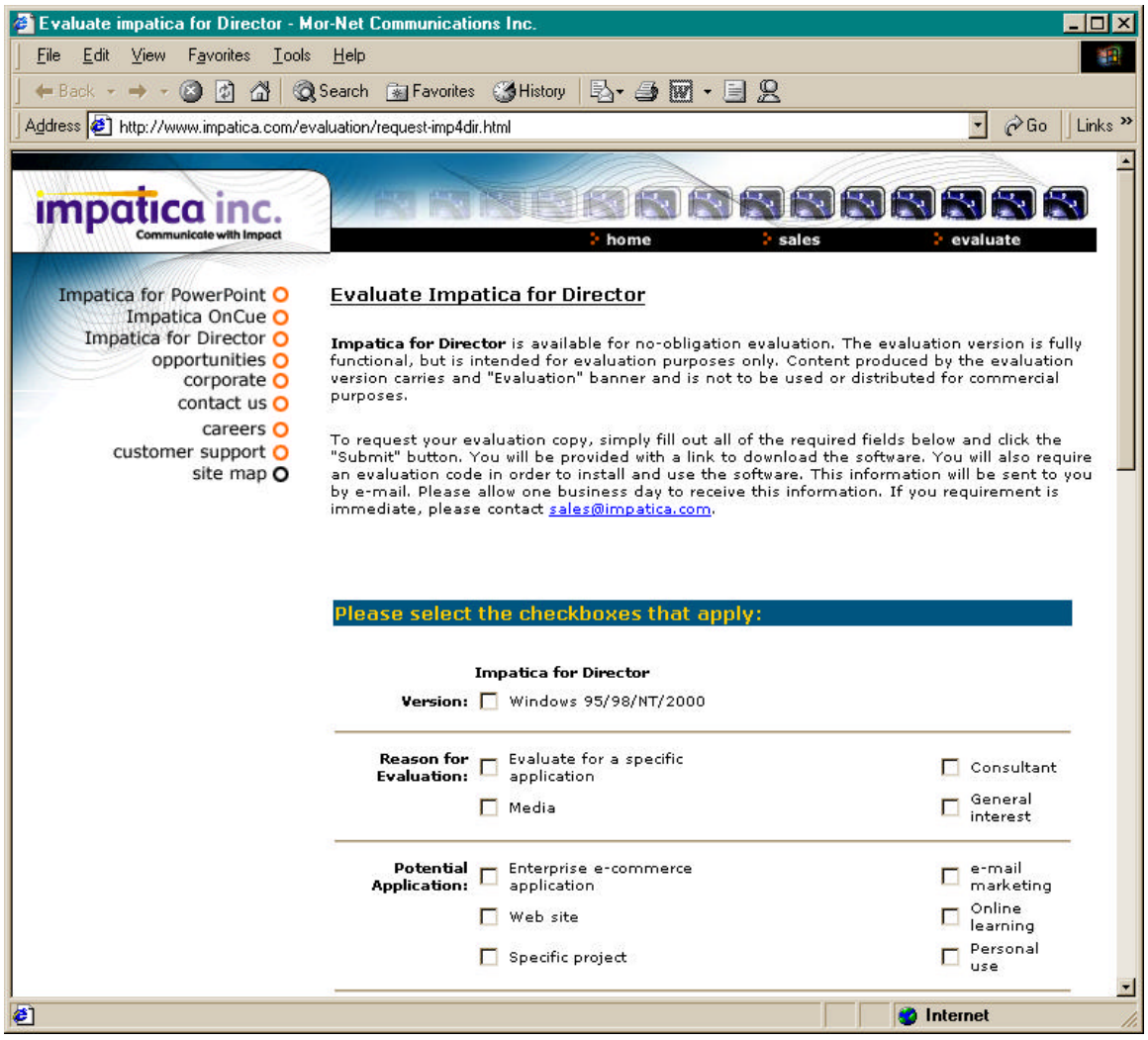
3 Downloading Impatica for Director

Impatica for Director can be downloaded from the **Impatica** Web site and used either as a licensed copy or an Evaluation copy. Go to the Evaluation page of the **Impatica** Web site or simply follow this link:

http://www.impatica.com/evaluation/



Please complete the information form provided. Rest assured that the information you provide will be kept confidential and will not be provided to third parties. Here is a portion of that form.

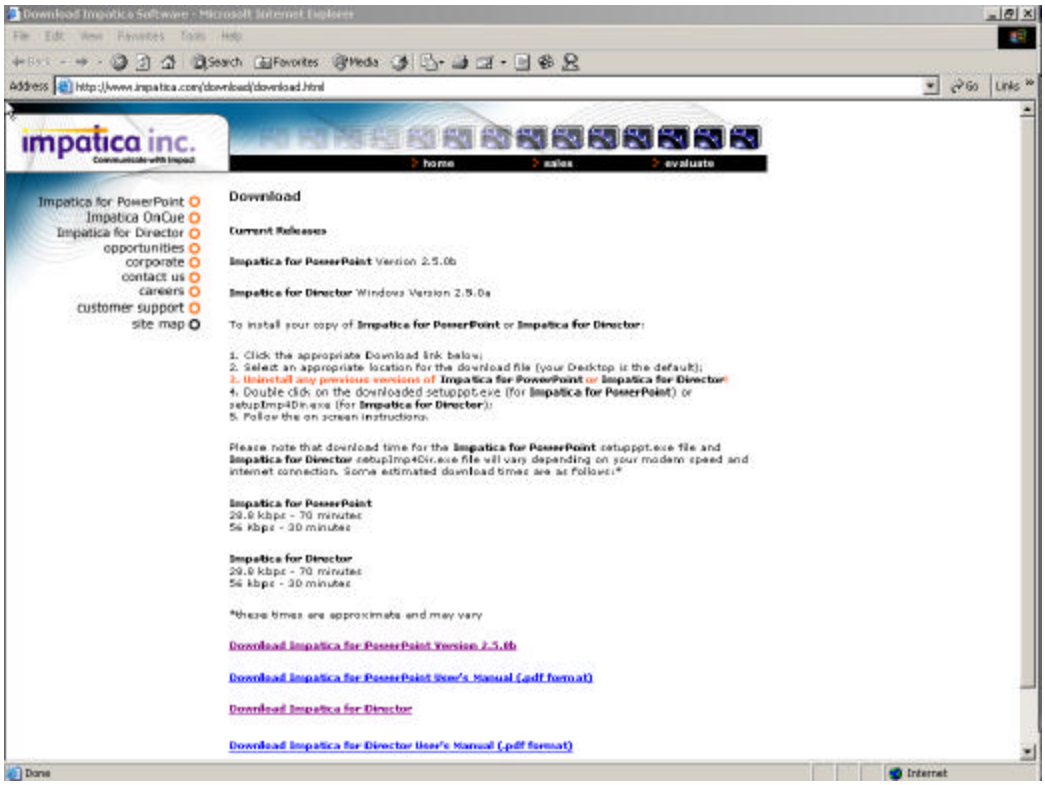


Although you can download and install **Impatica for Director**, you will need a Registration Code to activate the software as either an Evaluation or Licensed copy.

Once you have completed and submitted the form (with all of the required fields filled in), a page will display showing your Registration information (including Registration Code) for your evaluation copy of **Impatica for Director**. It is recommended that you save or print the information on this page.

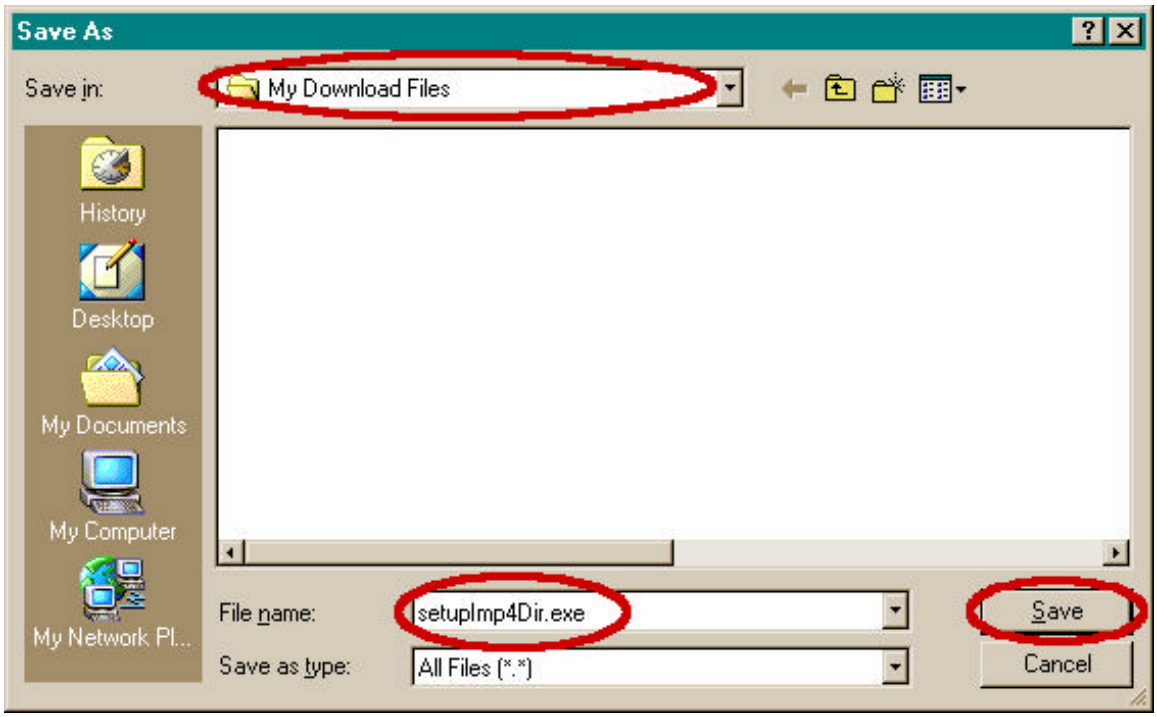
The Registration Code for the licensed copy will be provided to you by **Impatica's** Customer Support group as soon as your purchase has been processed.

Click on the link to continue downloading **Impatica for Director**.



Review the download instructions and click on the link for the product and version you desire to begin the download process.

You will be prompted to specify the location to which the software should be downloaded. You must remember this location so that you can install the software once it has been downloaded. The download file is called "setupImp4Dir.exe" for **Impatica for Director**.



Once you have downloaded your copy of **Impatica for Director**, you need to install it on your computer.

4 Installing Impatica for Director

Note: It will be necessary to uninstall any previous version of ***Impatica for Director*** *before attempting to install this version of the software (see Section 5 -* ***Uninstalling Impatica for Director****).*

4.1 Launching the Installer

4.1.1 From a Download

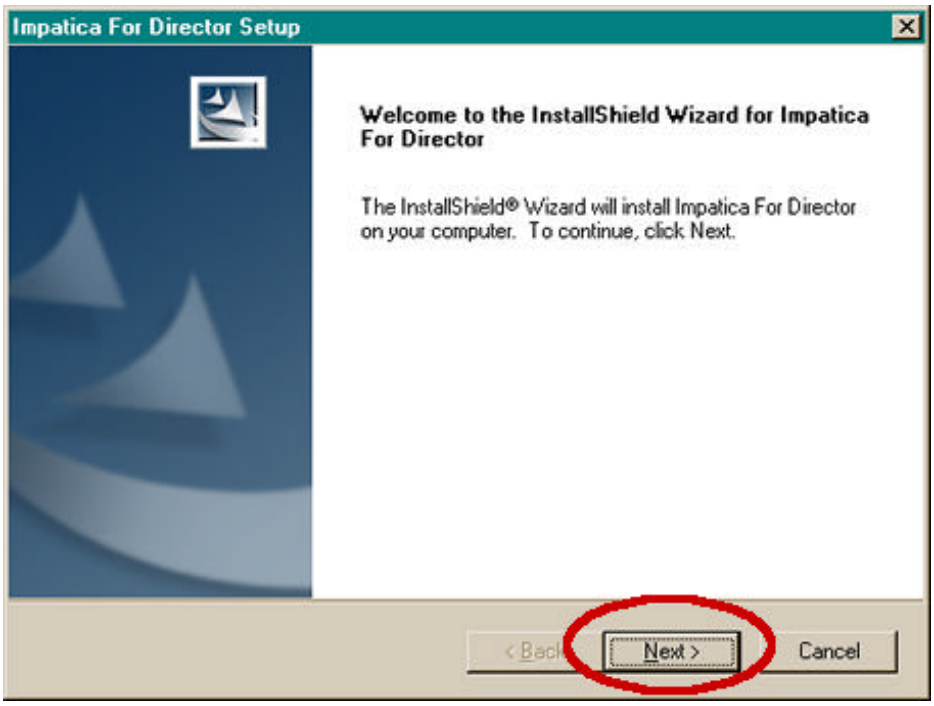
The file "setupImp4Dir.exe" is a standard install package. Simply double click on the file icon to begin the install process.

4.1.2 From a CD-ROM

Open the folder "Impatica for Director". Double-click on the file "setupImp4Dir.exe".

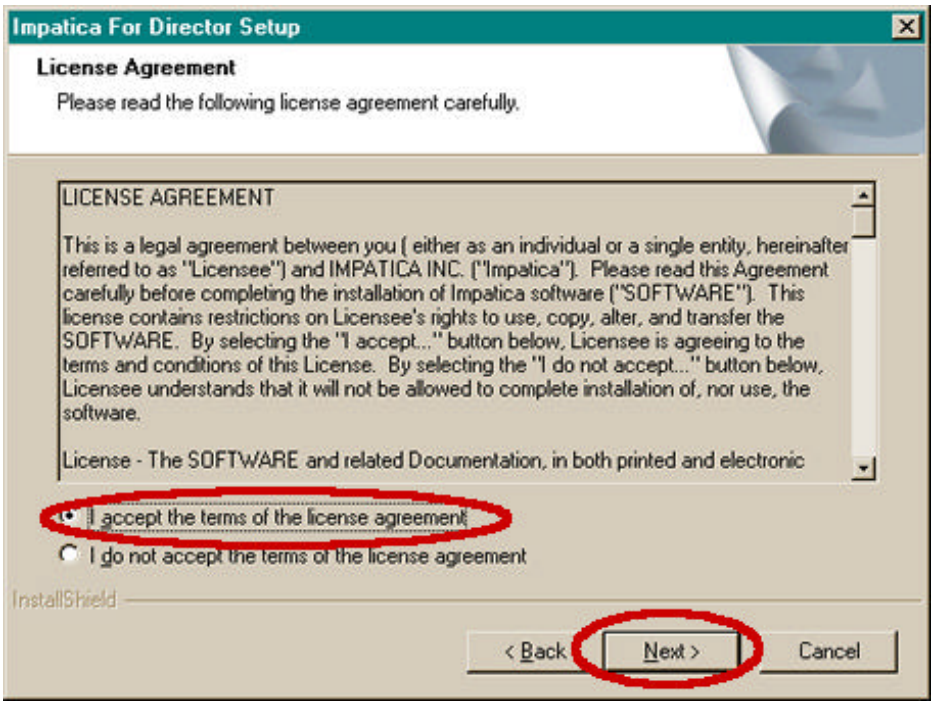
4.2 Using the Installer

To begin the installation, click **Next** on the first screen of the Setup Wizard.



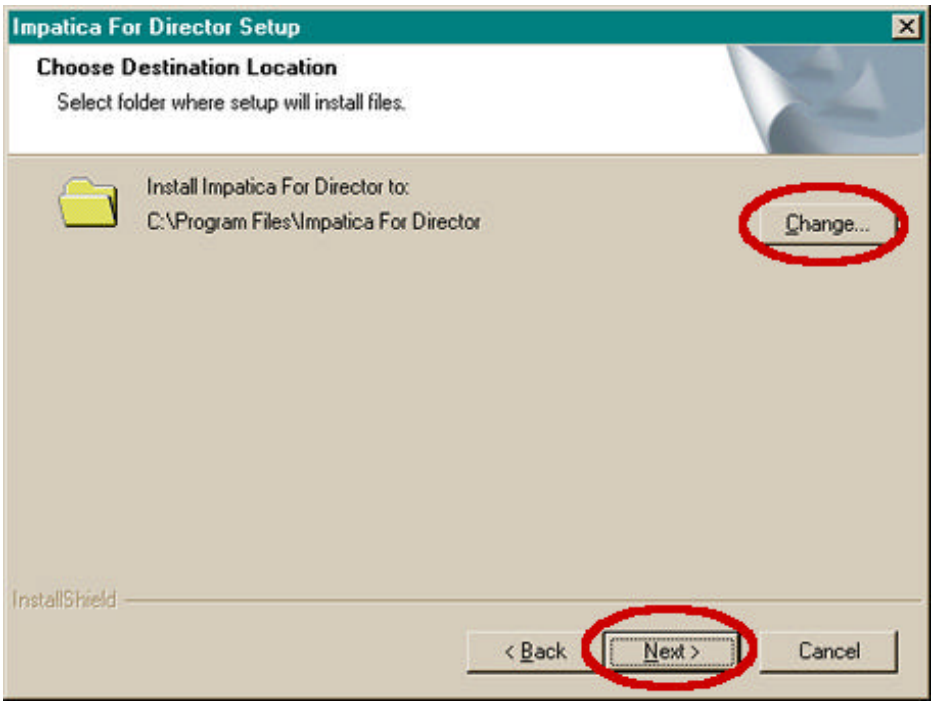
You will then be presented with the Software License Agreement for **Impatica for Director**. You must select the "I accept the terms in the

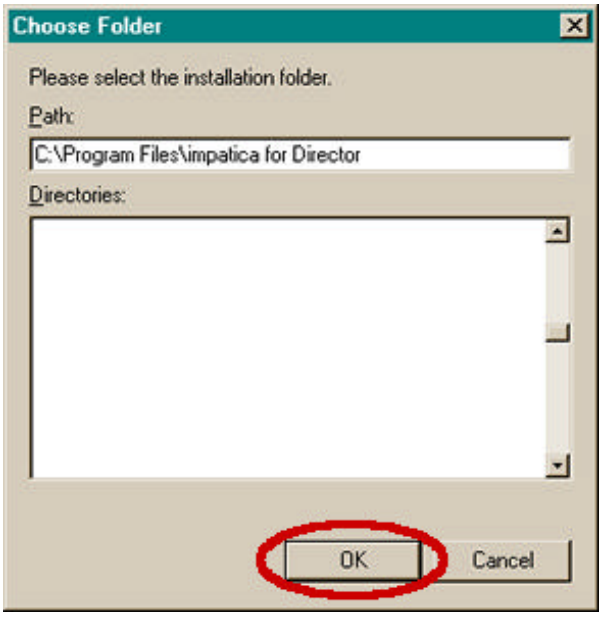
license agreement" option and click **Next** in order to proceed with installation.



You will then be prompted for a directory in which to install the files. The default directory is **C:\Program Files\Impatica for Director**.

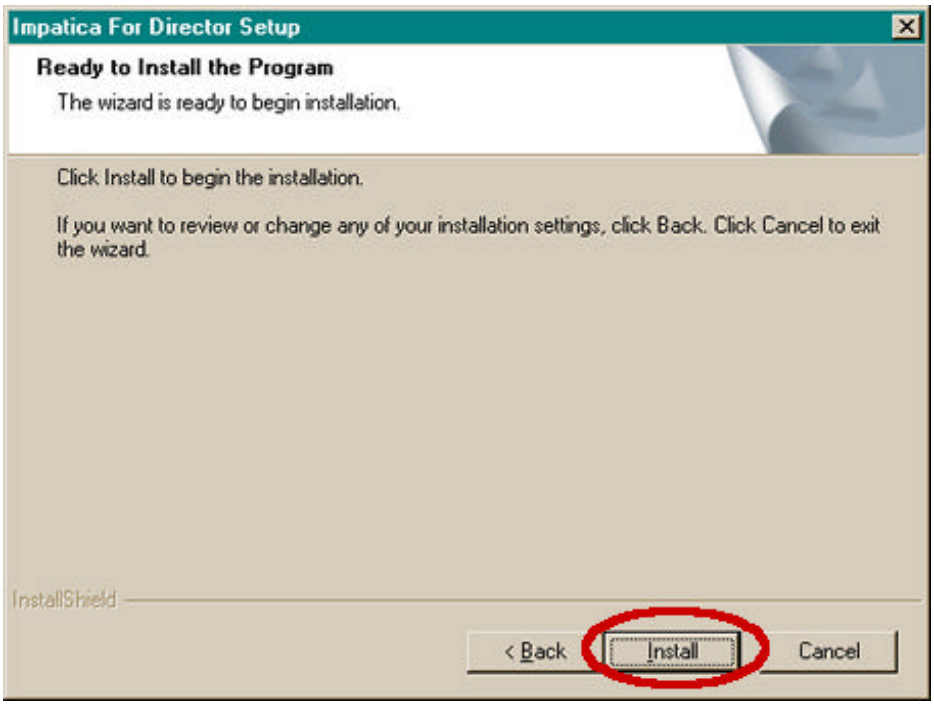
If you wish to change the destination directory, click the **Change** button (otherwise click the **Next** button).



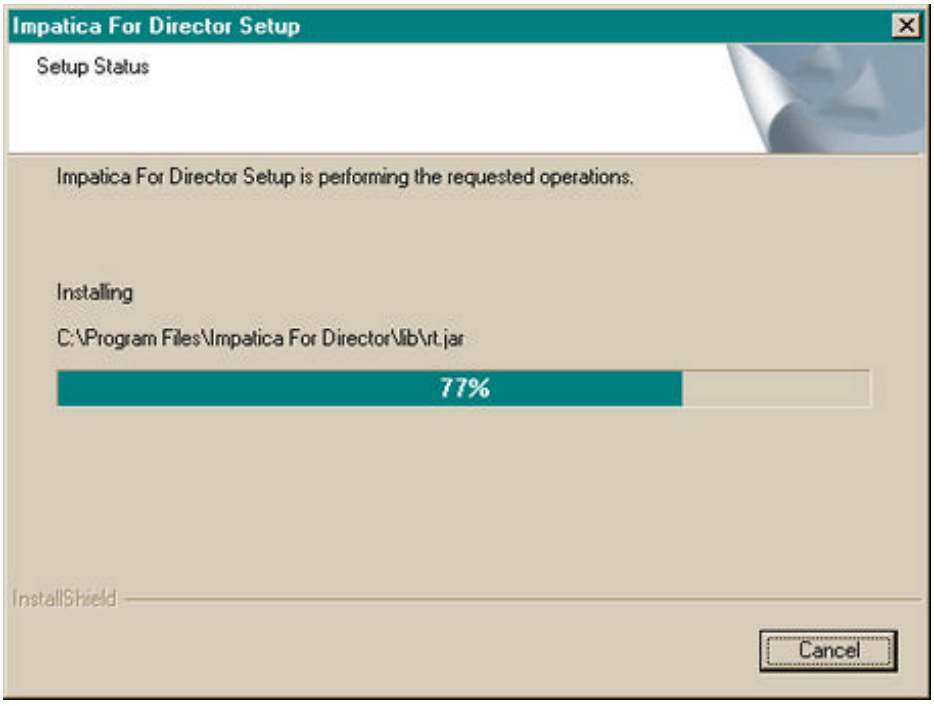


Choose the desired location, click the **OK** button, and then click the **Next** button when you are returned to the Destination Folder window.

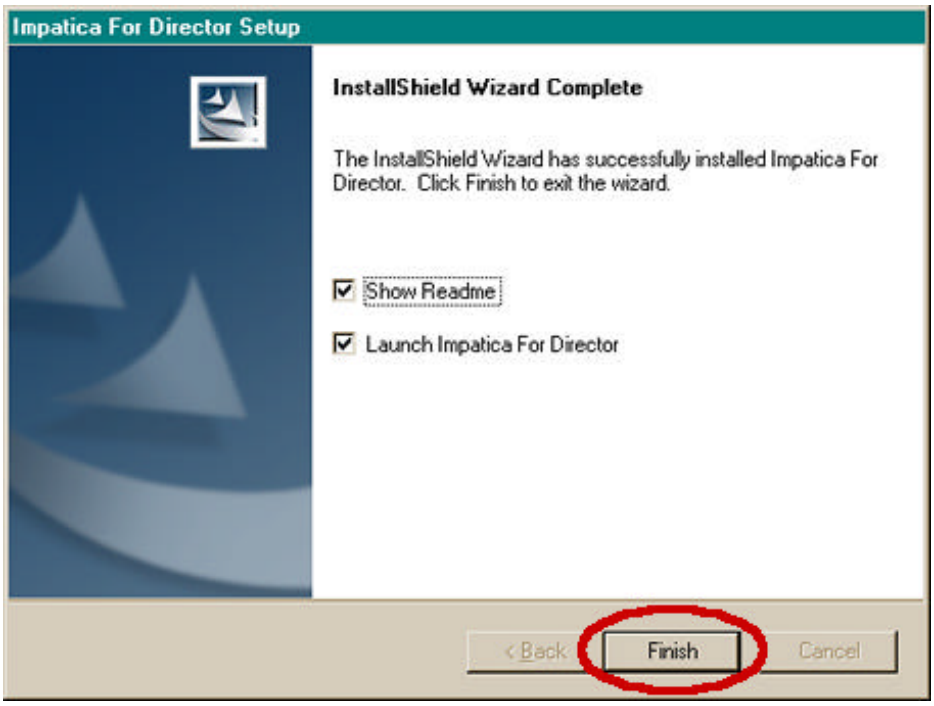
Once you are confident that you have specified the correct settings, click the **Install** button to proceed with the installation. If you need to modify any of your settings, click the **Back** button to return to the appropriate screen.



Impatica for Director will now begin to install on your machine.



When the setup is complete, the following dialog box will appear:



Here, you can choose to launch **Impatica for Director** and to see the readme file. To complete the process, click **Finish**.

5 Uninstalling Impatica for Director

To uninstall **Impatica for Director**, from the Start menu, choose Settings and then Control Panel. From the Control Panel, double click on Add/Remove Programs. In the Add/Remove Programs dialog box, select "Impatica for Director" from the list of "Currently Installed Programs". Then click "Remove".

6 Using Impatica for Director

Impatica for Director is a software program that reads ".dir" (movie) files that were created using Macromedia Director and translates them into a compressed and web-friendly format.

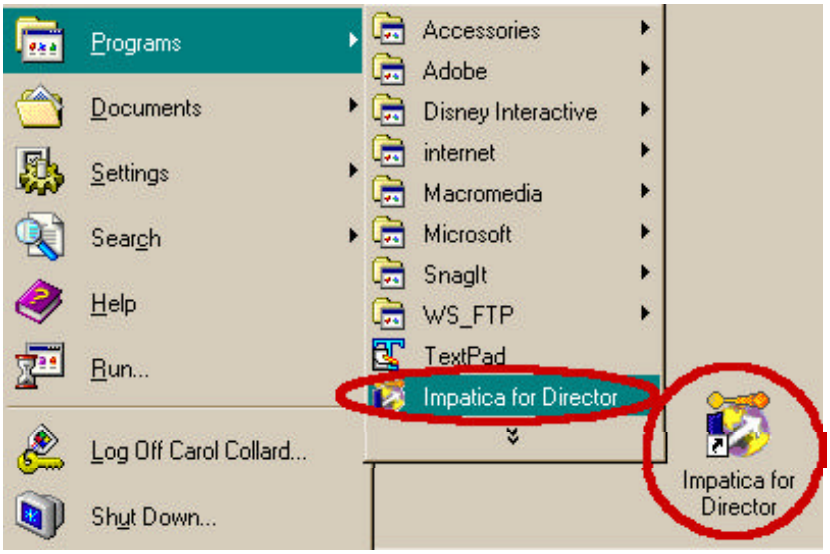
Once translated, the **Impatica for Director** movies can be embedded in web pages for efficient and plug-in free delivery over the Internet or corporate intranets. **Impatica for Director** movies can also be sent as e-mail messages to specific recipients. Provided that the recipient's e-mail client supports HTML mail messages and is Java enabled, the **Impatica for Director** movie will play spontaneously when the e-mail is opened.

Once you have installed **Impatica for Director** on your computer, you are ready to translate Director movies for Internet delivery.

If **Impatica for Director** encounters any unsupported features in the Director movie that is being translated, a warning message will be generated. In the case of fatal errors, i.e., the translation could not be completed, an error message will appear in a pop-up window. Handling of warning messages depends on the platform (see below).

6.1 Running Impatica for Director on Windows 95/98/NT/2000/XP

To translate a Director movie, launch **Impatica for Director** from your Start Menu or desktop icon.

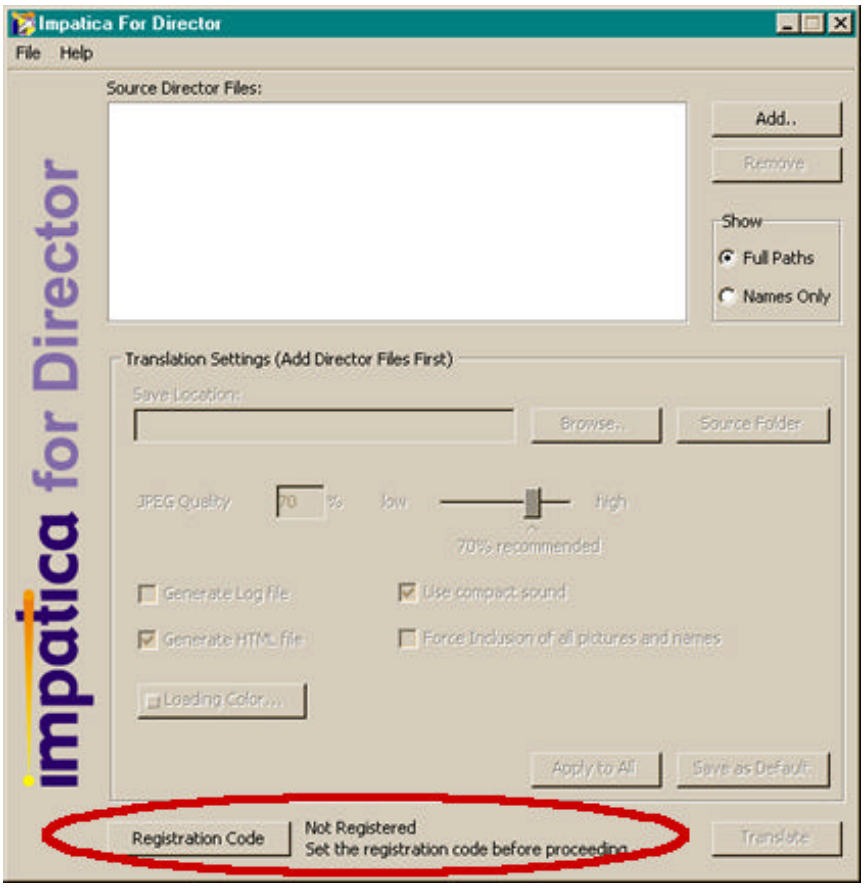


Alternatively, you can drop one or more ".dir" file(s) onto the **Impatica for Director** desktop icon to invoke the translator.

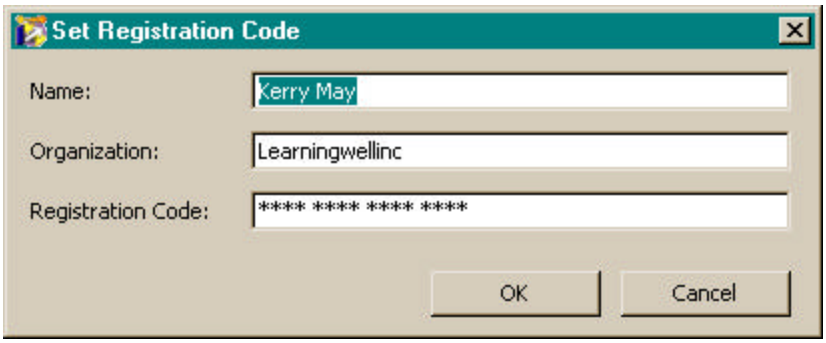
6.2 Registering Your Copy of Impatica for Director

Each copy of **Impatica for Director** must be registered as either an Evaluation copy or licensed copy before it can be used. Copies that were previously registered as Evaluation copies can be re-registered as licensed copies without re-installation.

To register your copy of **Impatica for Director**, click on the **Registration Code…** button.

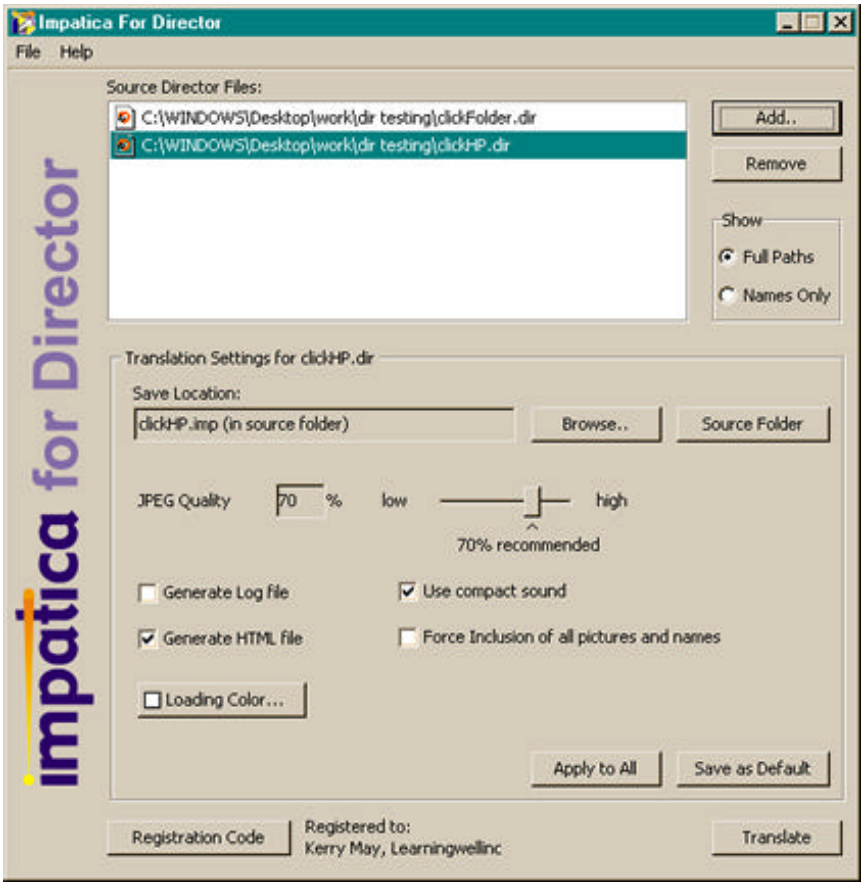


The following dialog box will appear. It is important that you enter your Name, Organization and Registration code exactly as they were provided to you, including spaces and case sensitivity.

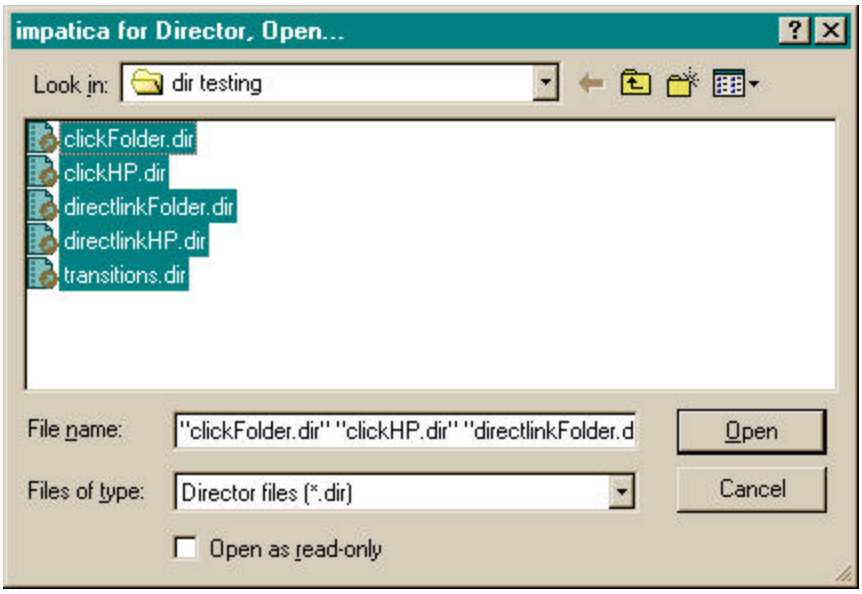


6.3 Selecting the Source Content Files for Translation

Whether you invoke **Impatica for Director** from the Start Menu or drag one or more file onto the desktop icon, the Source Files panel will appear, listing the files that had been dropped onto the program icon.



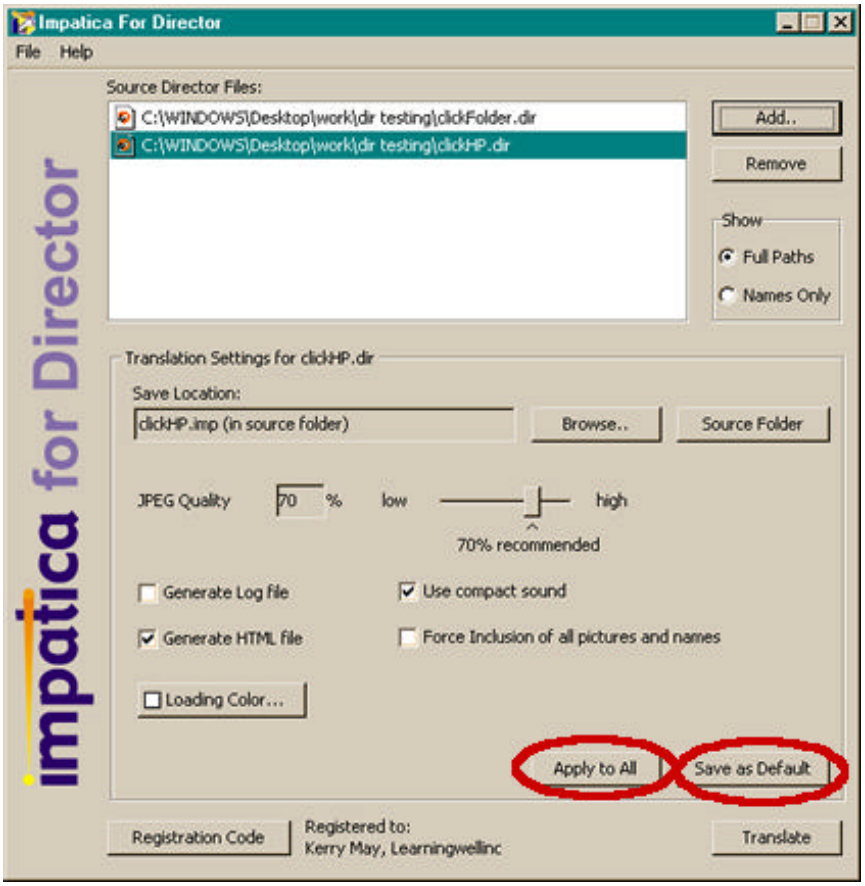
You can add any number of .dir files to the list or any file(s) from the list as often as you wish. When you click the **Add** button, an Open dialog box will occur.



To remove .dir files from the Source Director Files list, simply select the desired file and click the **Remove** button.

6.4 Setting Translation Options

In addition to selecting all of the files you wish to translate, there are a number of translation options you can select. These settings can be selected individually for each file being translated. Simply select the file from the source file list and set the appropriate options.



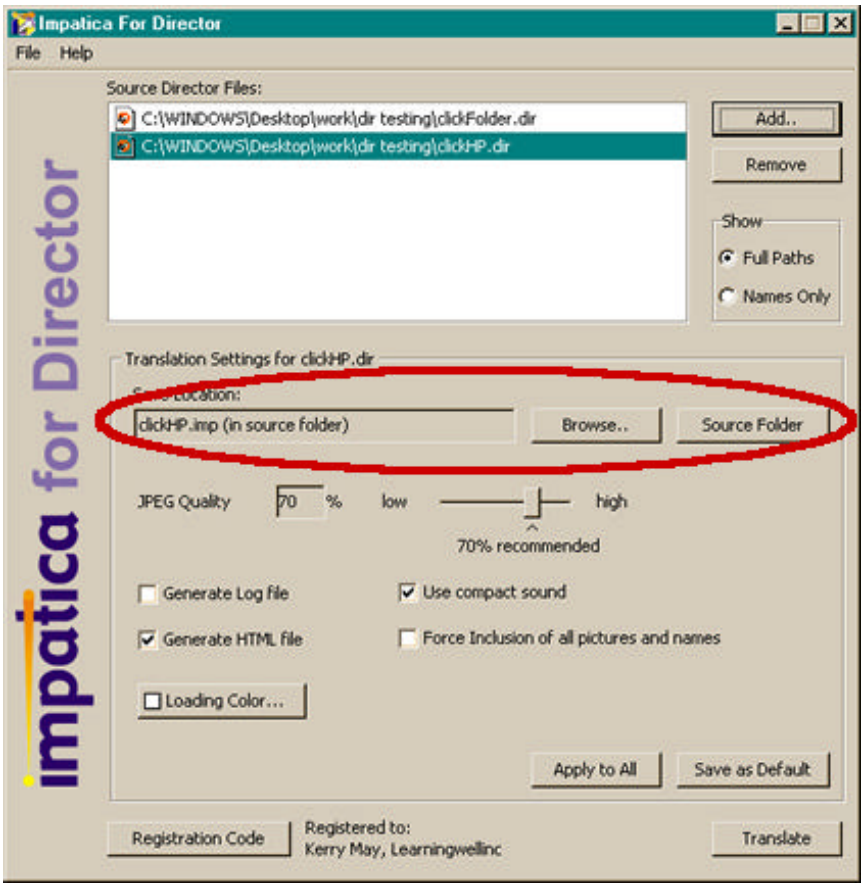
Click the **Apply to All** button to apply the settings to all files being translated (all files displayed in the files list). To create default settings, click the **Save as Default** button. Once saved as the defaults, the settings will be applied to any additional files added to this batch of source files and will be the default settings when you run **Impatica for Director** in the future.

6.4.1 Save Location for Your Translated Content

Impatica for Director allows you to specify the location on your hard drive in which the resulting Impatica file will be saved.

By default, **Impatica for Director** will save the translated file in the same folder as the source file. To change the save location for a file, select the file in the Source Director Files list box, then click the **Browse** button.

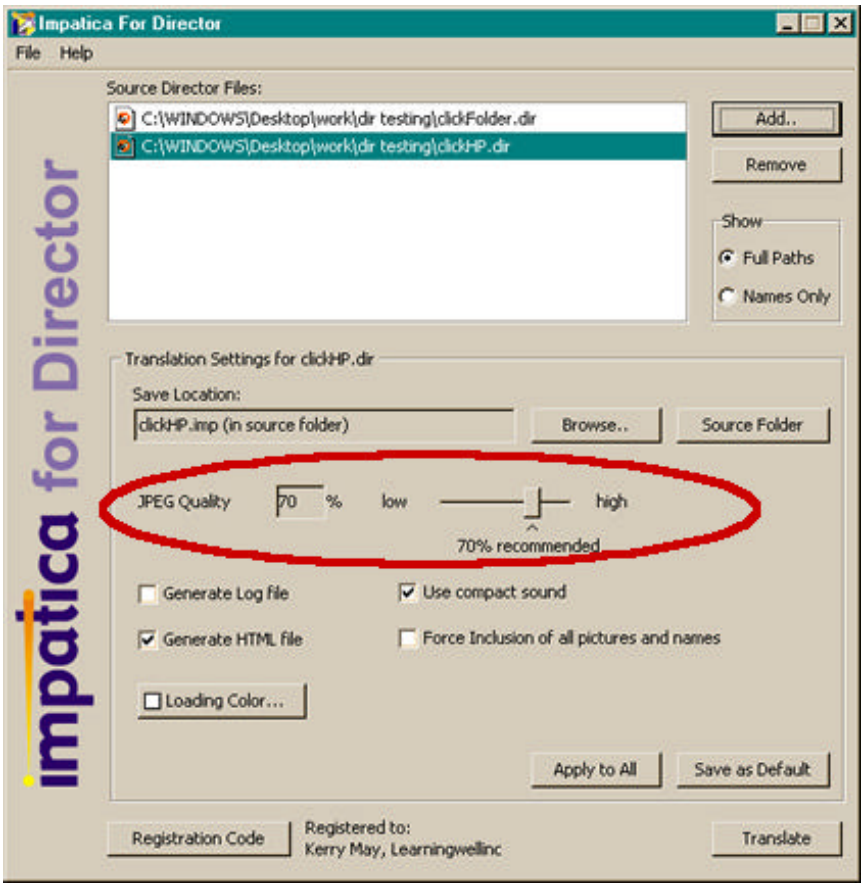
To save the translated file in the same location as its source file, click on the **Source Folder** button.



Caution: *Impatica for Director does not prompt when overwriting an existing .imp file (.imp is the extension used to identify Impatica files), unless you specify the save location by clicking the "Browse.." button.*

6.4.2 JPEG Images

The **JPEG Quality** slider bar lets you select the desired quality of JPEG images and therefore the corresponding extent of image compression. For most images, 70% quality provides a significant degree of image compression with no noticeable degradation in image quality.

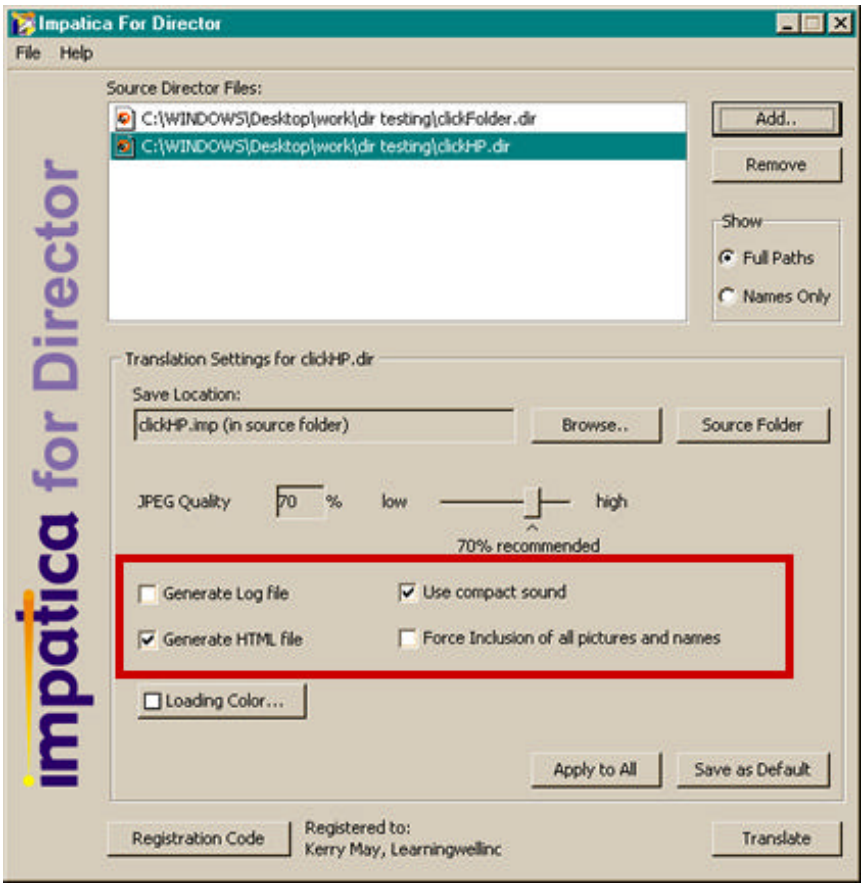


6.4.3 Generate Log File

Selecting the **Generate Log File** option will cause **Impatica for Director** to create a log file of error and/or warning messages. The log file will be saved in the same folder as the corresponding **Impatica** file.

6.4.4 Generate HTML File

Selecting the **Generate HTML** Option will cause **Impatica for Director** to create an HTML document that can be used to preview the translated file that was saved on your local drive. The HTML file will be saved in the same folder as the corresponding **Impatica** (".imp") file.



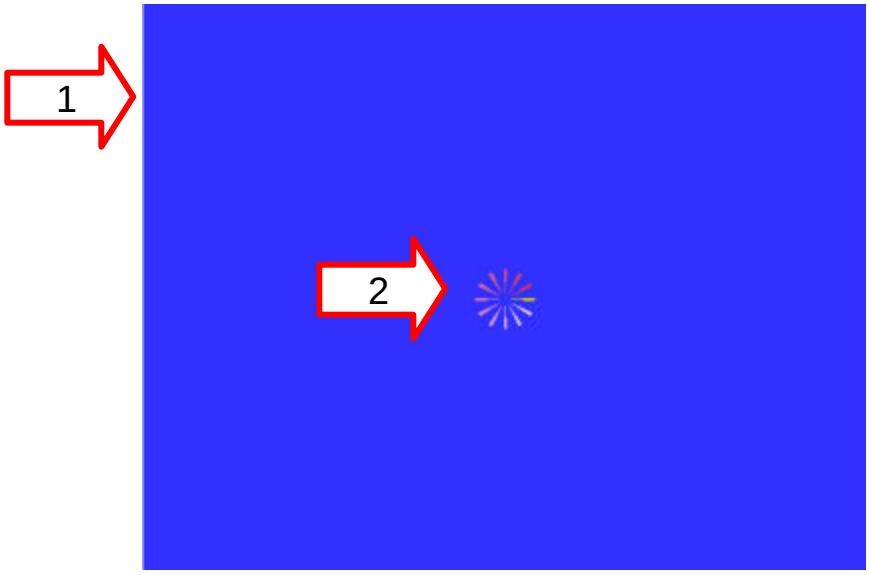
6.4.5 Use Compact Sound

The **Use compact sound** option allows users to control the degree of sound compression applied during translation. When the option is selected, **Impatica for Director** will convert sound objects to Impatica's compact sound format, which is designed for streaming sound over the Internet.

When the option is left unselected, sound will be converted to a larger, but higher quality sound format. This would be appropriate when distributing content via CD-ROM or within a controlled network where a sizeable bandwidth is always available to the end users.

6.4.6 Loading Color

During playback, while the Impatica player is loading the first segment of the presentation, a **Loading Indicator** will be shown in the presentation are. The **Loading Indicator** consists of two parts, as shown below: a colored background (1), and a spinning "pinwheel" (2).

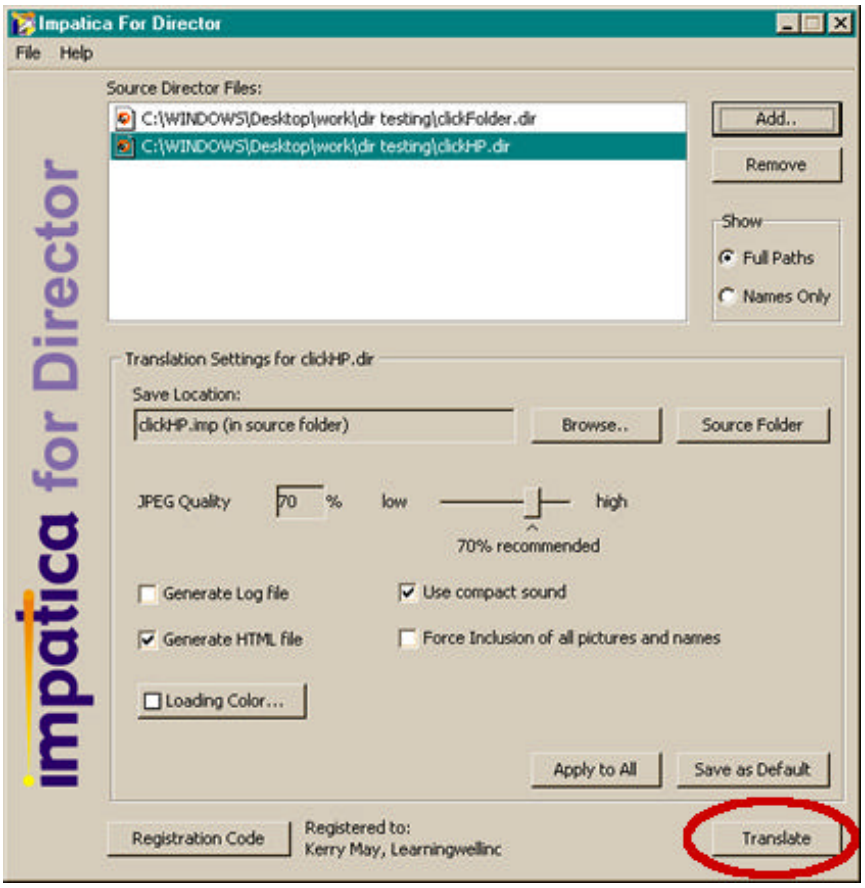


The **Loading Color** button allows you to select the color of the colored background (1) portion of the **Loading Indicator**. The spinning "pinwheel" (2) will be automatically set to a color that is complementary to that chosen using the **Loading Color** selector.

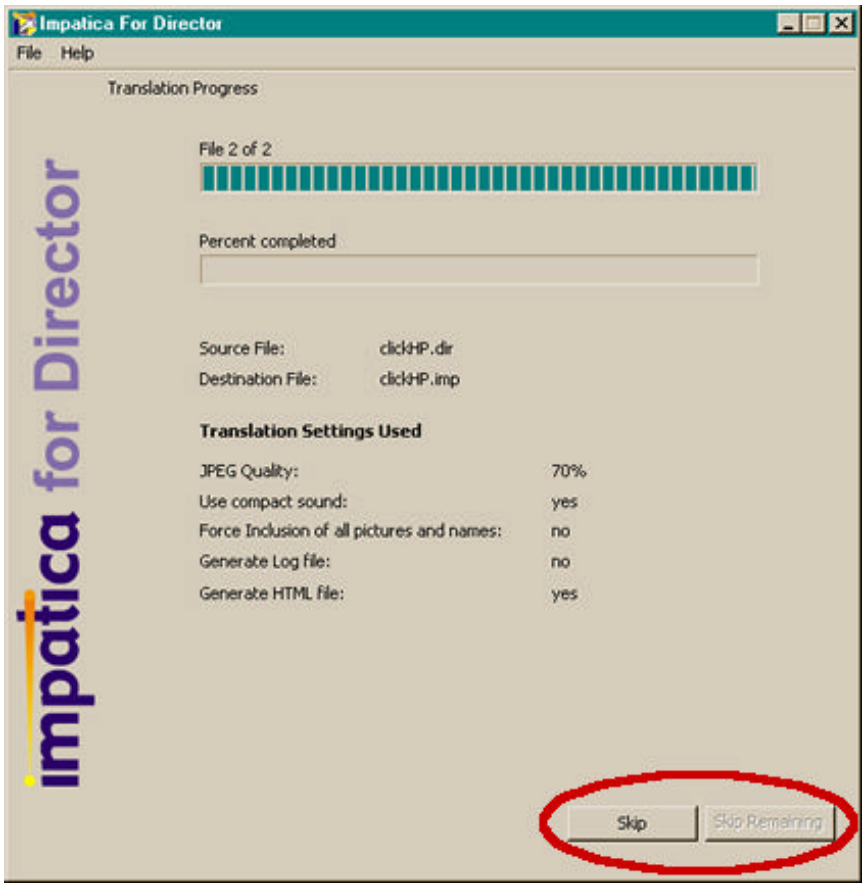
You may select from the preset colors on the **Swatches** tab, or tailor your colors by modifying the values on the **HSB** (Hue, Saturation, Brightness) and **RGB** (Red, Green, Blue) tabs.

6.5 Translating Your Files

Once you have selected all of the files that you wish to convert, and have added them to the Source Files list, click **Translate**.

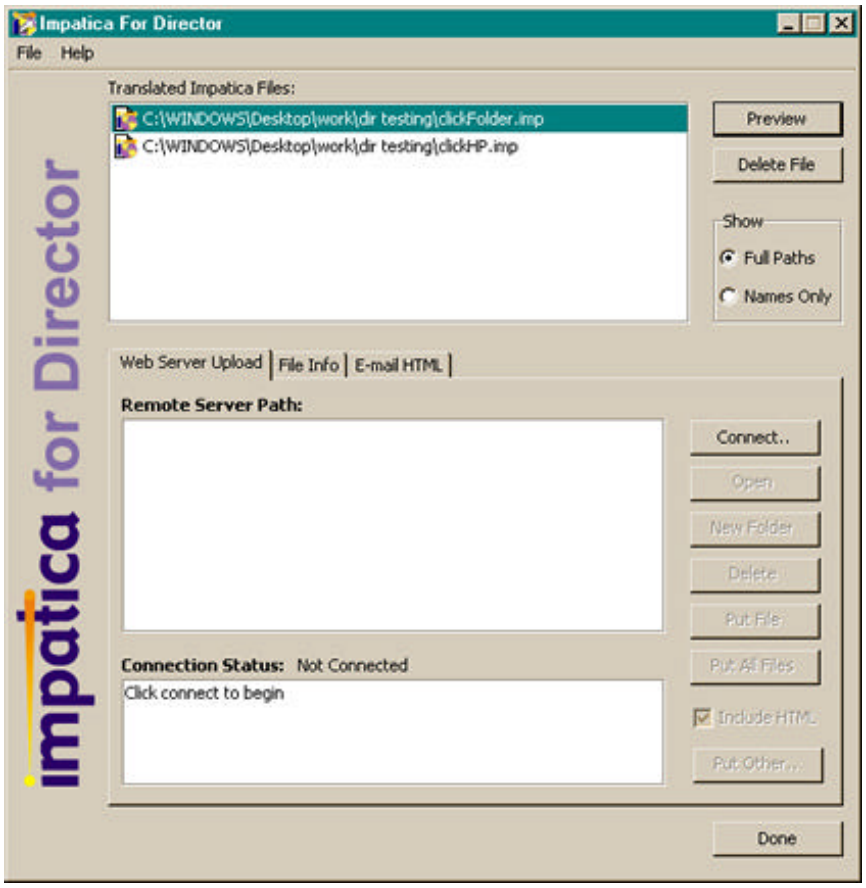


When you click the **Translate** button, the Translation in Progress box will appear showing the progress as each movie is translated. In some cases, it may take a few moments for progress to begin showing. Below the progress bars, the source and destination file names and translation settings are displayed.



You can use the **Skip** or **Skip Remaining** buttons to interrupt the translation process: **Skip** will stop the translation of the current file, while **Skip Remaining** will halt translation of the current file and all remaining files. In each case, any files that have already been translated are unaffected. When all files have been translated or skipped, a new panel will appear, presenting several options:

1. preview the translated presentations;
2. delete one or more converted files;
3. upload files to a Web server;
4. view file information; and
5. view the HTML required for sending your file by e-mail.



6.6 Preview

To view the translated **Impatica** files simply click the **Preview** button. Internet Explorer will be launched and the selected **Impatica** file will be played.

6.7 Deleting Impatica Files

Simply select the **Impatica** file you wish to delete and click the **Delete File** button. Any associated files, such as log files and HTML files, will also be removed from your hard drive.

6.8 Translation Summary

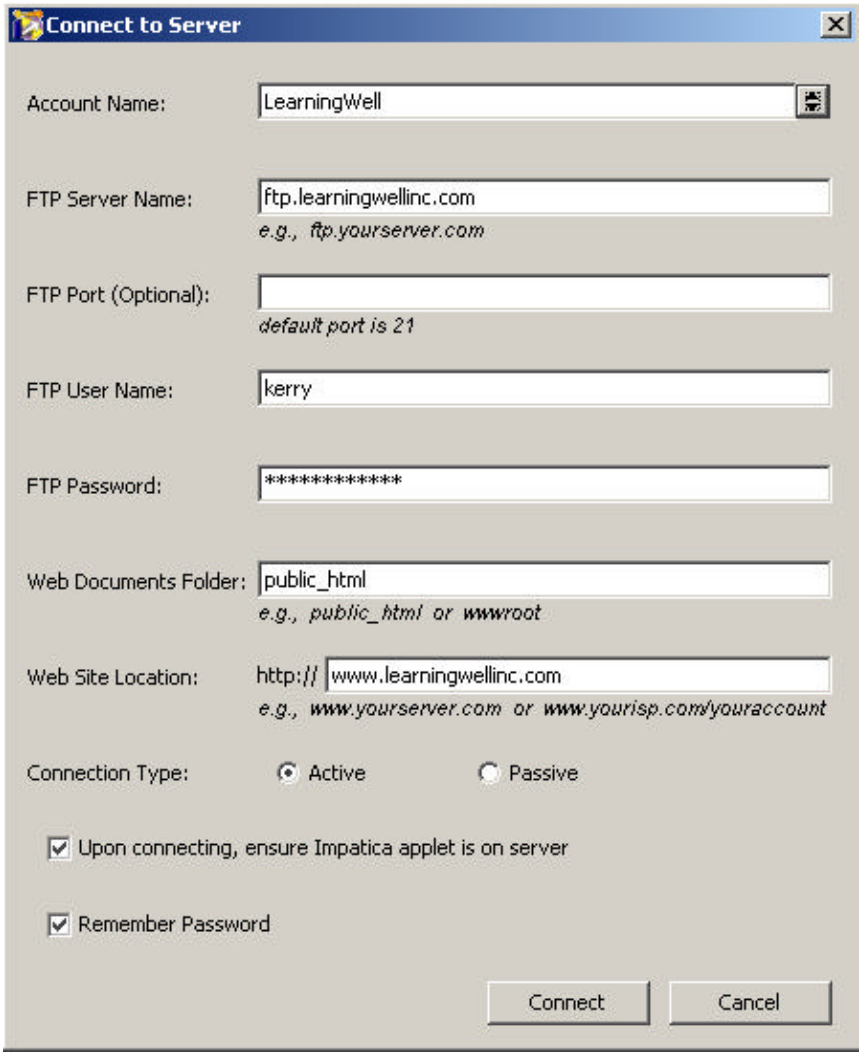
Impatica for Director produces a translation summary to report the successes, warnings and problems encountered during translation. The translation summary will appear automatically after translation if any warnings or problems occurred during translation.

6.9 Web Server Upload Tab

6.9.1 Establishing a Connection to your Web Server

Before you can upload your Impatica files or applet to your FTP server, you must first establish a connection to the server. This may require some assistance from your technical support person.

Click on the **Connect** button on the **Web Server Upload** tab. The following dialog box will appear:



The connect dialog box will present you with the information for your default account or for a new account if no accounts have been previously specified. From the Account menu, which can be accessed by clicking on the button at the right of the **Account Name** field, you can choose to create a new account, make the current account the default or choose a different account.

For each account, you must specify values for the following settings:

- FTP Server Name;
- FTP Port (optional);
- FTP User Name;
- FTP Password;
- Web Documents Folder;
- Web Site Location;
- Connection type;
- Upon Connecting, Ensure the applet is on the server; and
- Remember password.

If you are uncertain about any of these values, please contact your web master or service provider for details.

The **FTP Server Name** is the domain name or numeric IP address of the FTP server to which you wish to upload the translate files, e.g., "ftp.yourserver.com".

The **FTP Port** is an optional parameter that may be required due to the unique set-up of your FTP server. The default value is port 21. Normally, this field is left blank.

The **FTP User Name** and **FTP Password** are used to authenticate your identity when connecting to the FTP server.

The **Web Documents Folder** is the public folder on the FTP server that contains HTML and supporting files that are published to the web site. This field must contain the name of the folder or be left blank when the web documents folder coincides with the FTP home folder. The FTP home folder is the folder that is presented upon connecting to the FTP server.

The **Web Site Location** is the address (URL) for the web server (HTTP server). It is the address value you supply to a web browser to view the top page of your web site.

The **Connection** type can be set to Active or Passive. Active is the default connection type that will be applicable to most FTP servers. In certain cases, especially with firewalls, you may have to use a passive connection.

Generally, if an active connection fails, the protocol will automatically revert to passive.

The **Upon Connecting, Ensure Applet is on the Server** setting specifies whether or not **Impatica for PowerPoint** should verify that the applet files exist on the FTP server. If this option is selected, the files will automatically be uploaded if they are not already there.

The **Remember Password** checkbox allows you to indicate either to save an encrypted version of your password with the other settings or to omit the password from saving.

If you make any changes to your accounts, you will be prompted to save changes upon clicking **Connect** or **Cancel**.

6.9.2 Navigating through Files on your Server

To open a folder on the server, select it from the list and click **Open**. Alternatively, you may double-click on the folder.

6.9.3 Creating a New Folder on your Server

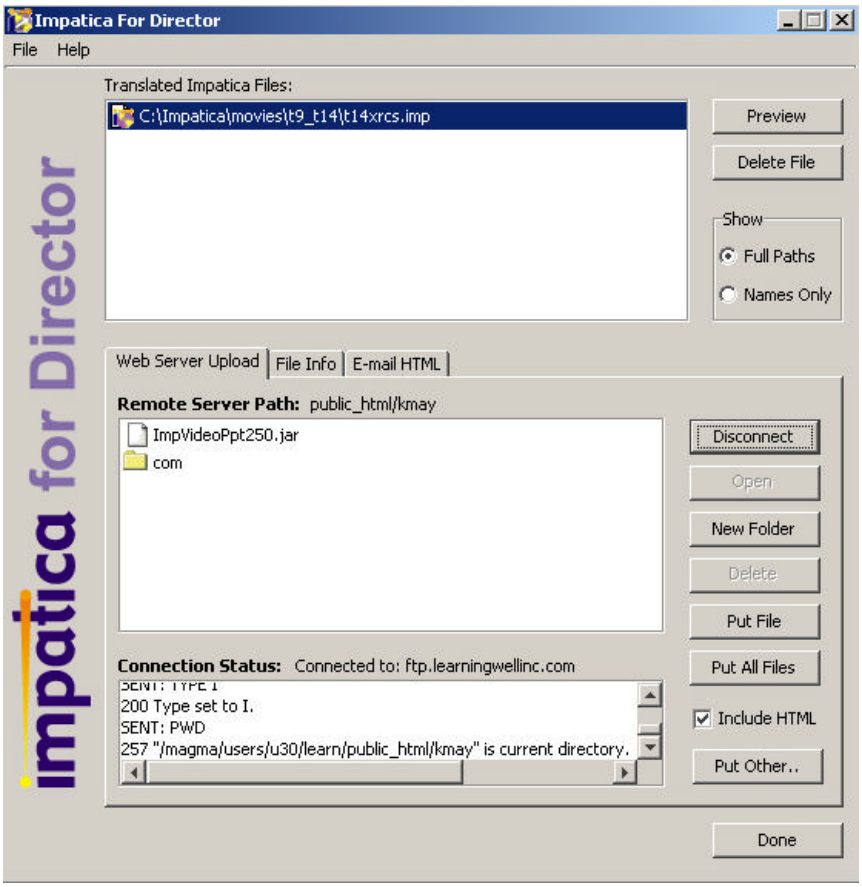
To create a new folder, first navigate to the appropriate location. Click the **New Folder** button. Enter the desired folder name and click **OK**.

6.9.4 Deleting a File or Folder from your Server

To delete any file or folder from your server, simply select it and click **Delete**. If you choose to delete a folder, all of its contents will be deleted before deleting the folder itself.

6.9.5 Uploading Files

To upload one or more **Impatica** files, you must first navigate to the appropriate location on your FTP server. To upload the HTML required to launch your presentation, ensure that the **Include HTML** checkbox is selected. To upload the currently selected **Impatica** file, simply click **Put File**. To upload the whole list of translated files, click **Put All Files**.



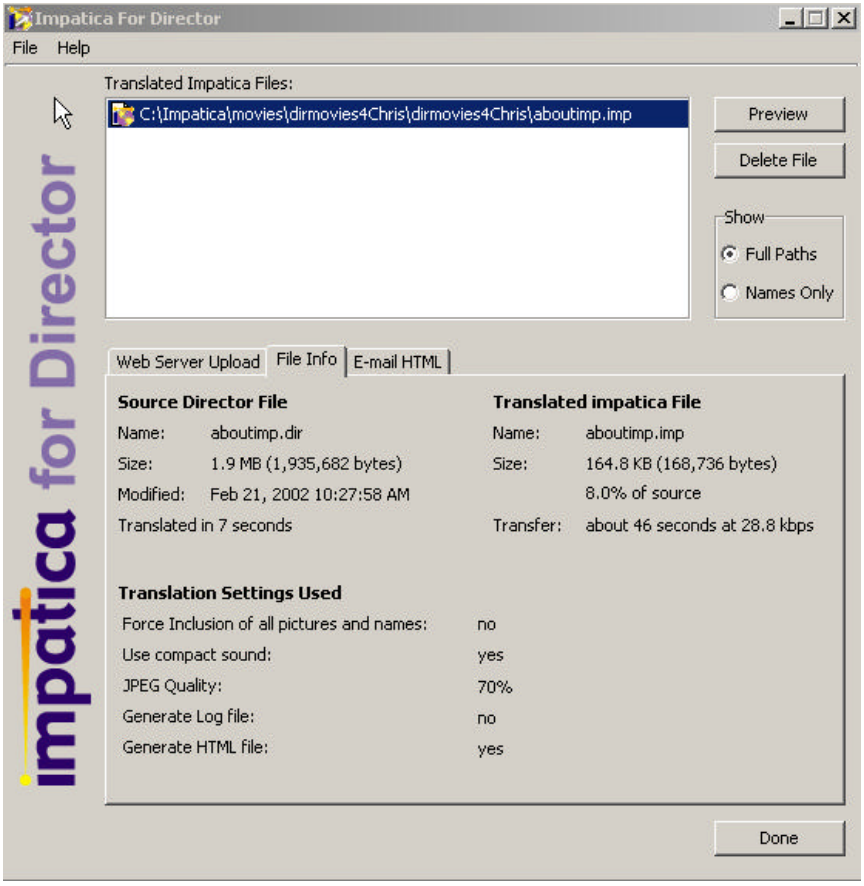
The **Put Other** button can be used to upload any file, for example previously translated files, custom HTML or any other file. Simply click the **Put Other** button and choose a file from the Open dialog box that appears.

6.9.6 Previewing Files from your Server

To view an Impatica file from your server, select the desired HTML file from the list of remote files. Click the Open button or double click on the HTML file. The HTML file will open in Internet Explorer.

6.10 File Info Tab

The File Info tab provides you with information regarding the source PowerPoint file, the translation settings and the resulting **Impatica** file. To view the information for a different file, select it from the translated file list while the **File Info** tab is visible.



6.11 E-mail HTML Tab

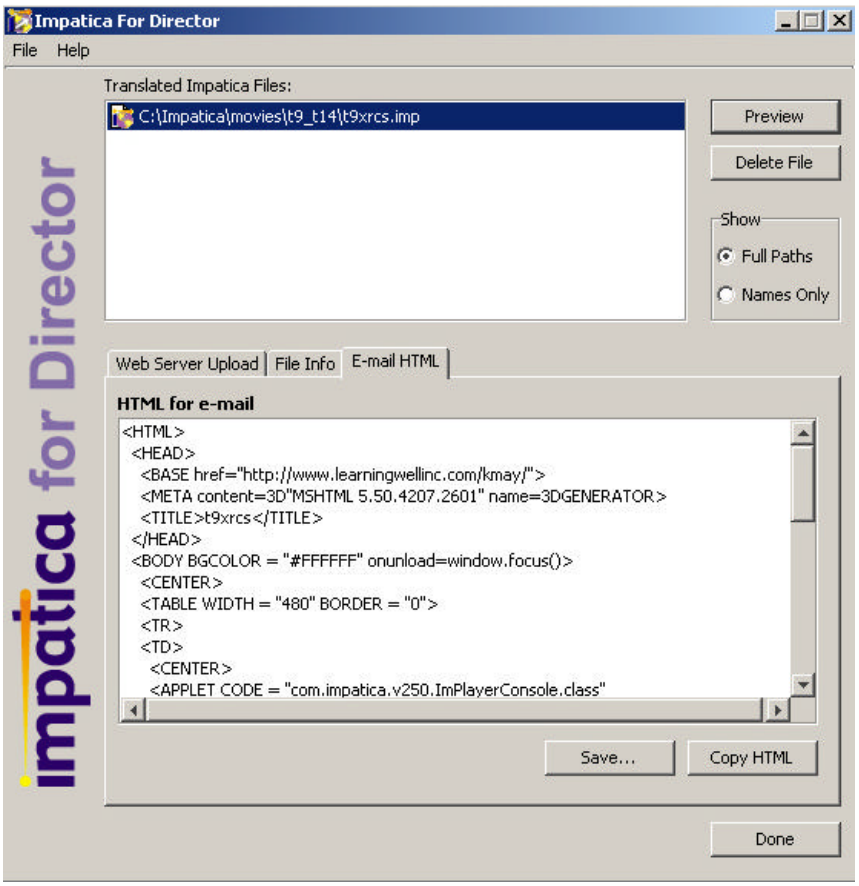
When you use **Impatica for Director** to send your content by e-mail, the content is not embedded in the e-mail message, nor is it attached to it. Rather, the e-mail contains a few lines of HTML code that refer to your converted presentation. Upon uploading your file, this HTML code will be automatically generated by **Impatica for Director**.

To view the HTML required to e-mail your presentation, select the **E-mail HTML** tab and choose the desired file from the list of translated files.

The e-mail HTML will only appear once the file has been uploaded.

To copy the HTML required for e-mail to the clipboard, click the **Copy HTML** button. You can now switch to the HTML editor portion of your e-mail client, if it exists, and paste the HTML.

Alternatively, you may wish to save the e-mail HTML as a text file. To do so, click the **Save** button, choose an appropriate location and name and click **Save**.



6.11.1 Attributes of the E-mail HTML

To ensure that your Impaticized presentation will be received and enjoyed by the widest possible audience, the e-mail HTML generated by **Impatica for PowerPoint** includes several nuances to address the following issues:

- Informing the recipients that the e-mail contains rich media content;

- Dealing with e-mail clients that cannot display rich media content.

6.11.1.1 Notification of Rich Media Content

The recipients of your rich streaming e-mail may not be expecting a narrated, animated message. To inform your viewers, **Impatica for PowerPoint** includes the message "This e-mail contains a rich media presentation."

In addition, in your e-mail message editor, you may want to add text such as: "Please ensure that your sound is turned up and that you are online." This would help ensure that your viewers have the most complete experience possible.

6.11.1.2 Link to Display Rich Media Content

Also, some recipients' e-mail clients may not be able to display rich streaming e-mail messages within their e-mail window. To ensure that all of your recipients have access to the content, **Impatica for PowerPoint** adds a link to the content.

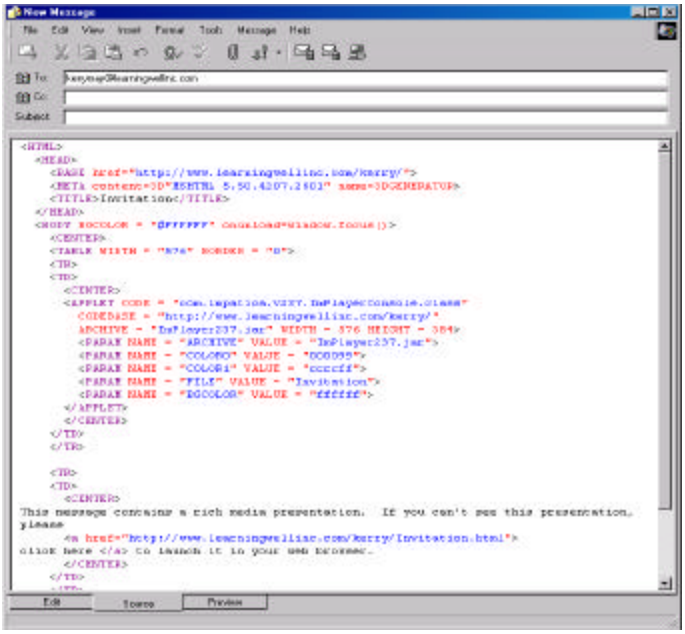
If the recipient's e-mail program cannot process the Java applet, the added link will be displayed in the recipient's e-mail window. When they click on the link, the Impaticized presentation will be displayed in their browser as it should have been displayed in their e-mail window.

6.11.2 Sending Impatica Content Through E-Mail

Many desktop e-mail programs are capable of sending HTML encoded e-mail messages, including Outlook Express 5 and Outlook 2000 for Windows, Netscape Messenger 4.7 for Windows, etc.

6.11.2.1 Outlook Express 5 or 6

1. Open a New Message window.
2. At the bottom of the window, click the **Source** tab. If the Source tab is not visible, from the **View** menu, select **Source Edit**.
3. Paste the e-mail HTML into the message area, replacing the default HTML that may be present.



4. Click on the **Preview** tab to test your content.
5. Click on the **Edit** tab.
6. Address and send your e-mail in the normal fashion.

6.11.2.2 Outlook 2000

1. Save the e-mail HTML.
2. Open the HTML document in Internet Explorer.
3. From the **Edit** menu, choose **Select All**.
4. From the **Edit** menu, choose **Copy**.

5. Launch Outlook.

6. To ensure that Outlook is enabled to send HTML content, from the **Tools** menu, select **Options** and, in the Options Window, click on the **Mail Format** tab and select **HTML** as the message format.

7. Open a **New Message** window.

8. Click anywhere in the message area and choose **Paste** from the **Edit** menu,.

9. Address and send your e-mail in the normal manner.

6.11.2.3 Netscape Messenger 4.7

1. Open a New Message window.

2. Click on the **Options** button.

3. In the **Format** drop down box, select **Plain Text and HTML.**

4. Copy and Paste your e-mail HTML into the message area.

5. Unfortunately, Netscape Messenger modifies the HTML you insert, often rendering it inoperative. To verify and remedy this, in the **Tools** menu, select **HTML Tools** and **Edit HTML Source**. Edit out any extraneous information that has been added by Netscape Messenger.

6. Alternatively, you can enter your HTML directly into the HTML Edit window. Unfortunately, it is not possible to Copy and Paste your HTML directly into the HTML Edit window.

7. Click **OK** to close the Edit HTML window.

8. Address and Send your e-mail in the normal fashion.

6.11.2.4 Other E-mail Alternatives

In addition to desktop e-mail programs, there are numerous Application Service Providers that offer broadcast e-mail services and a growing number of software products that are fully HTML capable. For further information, contact Customer Support at **Impatica**.

7 Supported and Unsupported Features of Director

7.1 Overview

Impatica for Director supports an ever-increasing array of Director features and Lingo commands and elements. The supported elements have been carefully selected to maximize functionality and flexibility while minimizing file and player size. As this document and your own experience will show, most functionality and effects can be implemented using the supported features.

This section of the User's Guide enumerates the Director features and Lingo commands that are supported in **Impatica for Director** and those that are not.

7.2 Cast Members

Impatica for Director supports the following types of cast members:

- Bitmaps
- Shapes – specifically, rectangles
- Fields
- Palette
- Sounds
- Transitions
- Scripts

The following cast member types are not currently supported by **Impatica for Director** and will result in an error message being generated during the translation process.

- Digital Video
- Movie
- Film Loop
- Text

- Shapes, other than rectangles
- Vector Shapes
- Buttons
- Xtra
- Streaming Shockwave Audio (SWA)

Although **Impatica for Director** does not support SWA, it does support plug-in free streaming audio, using a proprietary format which translates supported sound formats into Sun .au format.

7.2.1 Linked Cast Members

Impatica for Director does **not** support linked cast members.

7.2.2 Cast Member Properties

Impatica for Director supports testing, but not setting, of the name, number and type cast member property.

7.2.3 Loading Cast Members

Impatica for Director loads the cast members in the order in which they appear in the score. Cast members that are not explicitly in the score but are referenced only in a script will not be loaded until the end of the movie. To ensure that such cast members are available when their script is executed, they should be pre-loaded in a "pre-load" channel.

7.2.4 Unsupported Lingo for Cast members

Impatica for Director does not support any of the following Lingo related to handling cast members:

- move member
- new(#member Type)
- erase member
- picture
- media

- scriptText
- scriptType
- size

Cast members cannot be modified in the cast window. It follows that the modified cast member property is always 0 in **Impatica for Director**.

The **Impatica for Director** player can only refer to a cast member using the explicit member keyword. It is not sufficient to assign the member keyword to a variable.

The following statement is an acceptable work around to this problem:

```
put the text of member mem
```

However, the following statements do **not** work in the **Impatica for Director** player because the second statement does not use the member keyword when referring to the cast member.

```
Set mem = the member of sprite the spriteNum
of me

Put the text of mem
```

7.3 Sprites

Impatica for Director supports the following types of sprites:

- Bitmap
- Rectangle shapes
- Text
- Text fields

Many of the features and Lingo commands for manipulating sprites are supported by the **Impatica for Director** player.

7.3.1 Supported Sprite Features

The **Impatica for Director** player supports the following sprite features:

- Switching cast members assigned to a sprite
- Location control and animation
- Resizing sprites
- Inks (only copy, matte and background transparent inks are currently supported.)
- Editable fields
- Visibility
- Testing whether two sprites intersect

7.3.2 Unsupported Sprite Features

The following sprite features are **not** supported by **Impatica for Director**:

- Setting shape color
- Changing the cursor's image when the cursor is over a sprite
- Blends
- Trails
- Moveable sprites

7.3.3 Inks

A limited set of inks is available in **Impatica for Director**. The inks that are supported vary depending on the type of sprite:

- Bitmap sprites
- Shape sprites
- Text sprites
- Field Sprites

Furthermore, unlike Director, **Impatica for Director** assigns the ink to the cast member, not to the sprite. This means that a sprite's ink cannot be changed after it has been set.

7.3.4 Unsupported Sprite References in Lingo

The **Impatica for Director** player requires explicit reference to sprites. That is, the keyword "sprite" must precede the sprite's name, number or a variable containing the name or number. It is not sufficient to assign the sprite keyword to a variable.

The following statement is an acceptable work around to this problem:

```
put the locH of sprite s
```

The following statements do not work because the second statement refers to the sprite without using the sprite keyword.

```
set s = sprite of the spriteNum of me

put the locH of s
```

7.4 Bitmaps

Internal bitmap cast members are supported by **Impatica for Director**.

Impatica for Director supports Director graphical formats for bitmaps: PICT, BMP, and others and converts them into either GIF or JPEG depending on the color depth of the Director bitmap.

Impatica for Director converts all bitmaps that have a color depth of 8-bit to GIF format and all bitmaps that have a color depth greater than 8 bit to JPEG format.

7.5 Shapes

The **Impatica for Director** player currently supports only the Rectangle shape cast members.

Filled and unfilled shapes are supported, however, patterns and line thickness attributes are not.

7.6 Fields

The **Impatica for Director** player supports editable fields.

Editable cast member property vs. editable option in the score.

The **Impatica for Director** player also supports most of the Lingo text chunk expressions, including:

- char,
- word,
- item and
- line.

7.6.1 Field Text and Style Attributes

Under development

7.6.2 Field Characteristics

Inks, Field size, word wrapping, borders, auto-tabbing, position

7.6.3 Fonts

Java supports only a very limited number of cross-platform fonts. At this time, the **Impatica for Director** player supports only the default serif, sans-serif and system fonts, which may vary from platform to platform. To use a specific font, treat the text as a bitmap.

7.6.4 Double-Byte Characters

The **Impatica for Director** player does not support double-byte international characters in fields. To display double-byte characters on the Stage, use a text cast member and convert the text to a bitmap.

7.7 Casts

The **Impatica for Director** player supports a single internal cast. External casts are not supported since they have limited relevance in a streaming media environment.

The following Lingo elements related to casts are unsupported:

- activeCastLib cast property
- fileName cast property

- findEmpty() function
- name cast property
- number cast property
- number of members cast property
- preLoadMode cast property
- selection cast property

7.8 Parent Scripts and Child Objects

Object-based Lingo, including parent scripts and child objects are supported by **Impatica for Director**.

7.9 Transitions

The **Impatica for Director** player supports the following transitions:

- Center out horizontal
- Dissolve pixels
- Random column and row
- Venetian blinds
- Vertical blinds

You can perform transitions for the entire Stage or for only the changing area, as can be done in original Director movies.

Impatica for Director does **not** support the puppetTransition command or transition Xtras.

7.10 Tempos

The **Impatica for Director** player supports tempos that are set in the Tempo channel but does **not** support the puppetTempo command.

The player supports the following tempo settings in the Frame Properties Tempo dialog box:

- Tempo;

- Wait; and
- Wait for Mouse Click or Key Press

The Wait for Cue Point option is **not** supported because cue points are not supported.

7.11 Palettes

For the most reliable color when authoring a movie, use a standard Web palette.

Specifically, **Impatica for Director** does **not** support palette color cycling. **Impatica for Director** does not support the following Lingo:

- ColorDepth
- FramePalette
- FullColorPermit
- PaletteMapping
- Paletteref of member
- Palette of member
- PuppetPalette
- SwitchColorDepth

Impatica for Director does support the palette cast member.

7.12 Behaviors

The **Impatica for Director** player supports many of the same behaviors that come with Director. All of the supported behaviors work reliably in movies converted using **Impatica for Director**.

It is also possible to write your own behaviors for use in the **Impatica for Director** player, but when doing so, keep in mind which Lingo commands are supported by **Impatica for Director**.

Specifically, **Impatica for Director** does not support the following features and Lingo commands:

- property keyword

- spriteNum of me property
- Messages sent to sprites by using the sendSprite or sendAllSprites commands
- Messages sent to handlers by using the call or callAncestor commands
- Inheritance set from other behaviors through the ancestor property
- Use of scriptInstanceList of sprite property to determine which behaviors are attached to sprites
- Use of Behavior Inspector during authoring by using on getBehaviorDescription, on getPropertyDescriptionList and on runPropertyDialog

7.13 Computer and Monitor Control

Impatica for Director does not support any of the following properties and commands.

Properties:

- BeepOn
- ColorDepth
- DeskTopRectList
- FullColorPermit
- MachineType
- MultiSound
- Version

Commands:

- quit,
- restart; and
- shutdown.

7.14 User Interface

The **Impatica for Director** player supports the alert command, but does not support Director's custom menus, buttons, radio buttons or checkboxes.

7.15 Lingo

Impatica for Director supports an ever-increasing number of Lingo features and commands. This section identifies the supported and unsupported Lingo features and suggests work-arounds for many of the unsupported features.

7.15.1 Events

Most events in Director work the same in the **Impatica for Director** player, following the same event order and message hierarchy.

The **Impatica for Director** player does not support events used by the Behavior inspector , which are useful only while authoring, nor the events related to MIAW which is not supported by **Impatica for Director**.

Other events **not** supported by the **Impatica for Director** player are:

- on streamStatus for streaming media
- on evalScript for browser scripting
- on cuePassed for synchronizing media
- on idle for responding to idle periods
- on timeout for responding to timeouts
- on alertHook for handing errors
- on getBehaviorDescription, on getPropertyDescriptionList, and on runPropertyDialog

Responding to Key Events

The **Impatica for Director** player responds to keyDown and keyUp messages only if the movie has focus within the browser. The user must click in the applet before the applet can receive any keys that the user types.

When the movie plays back as an applet, an on keyDown or on keyUp handler always traps key presses, even if the handler is empty. If the user is typing in an editable field, an on keyDown handler attached to the field will be called and the text field will be filled in.

The **Impatica for Director** player supports key combinations in Windows using the Control, Alt, and Shift keys and on the Macintosh using the Command, Option, Control, and Shift keys. However, the browser receives the keys before the movie and thus responds to and intercepts any key combinations that are browser keyboard shortcuts. For example, if the user enters Control-R or Command-R, the browser reloads the current page; the movie never receives the key combination.

To ensure consistent and reliable playback on a variety of platforms, avoid common key combinations.

Primary Event Handlers

The **Impatica for Director** player does **not** support any of the primary event handlers:

- keyDownScript,
- keyUpScript,
- mouseDownScript,
- mouseUpScript, and
- timeoutScript.

Passing Events

The **Impatica for Director** player does not support the Pass or stopEvent commands.

7.15.2 Syntax and Logic Structures

The **Impatica for Director** player supports the following branching and repeat structures:

- if ... then structures
- case statements
- repeat while, repeat with, repeat with ... in list loops

Exiting Handlers

To exit a handler, use the end, return or exit command. The **Impatica for Director** player does not support the halt or abort commands.

Obtaining Results of Functions

Impatica for Director supports the return function for passing results back from a user defined functions. The result function is not supported.

7.15.3 Navigation

The **Impatica for Director** player supports the following Lingo elements used for navigation:

- continue
- delay
- go to frame
- go to frame ... of movie
- go to movie
- go to the frame
- marker()
- pause
- the frame
- the pauseState

Impatica for Director does not support the following Lingo:

- play frame
- play frame ... of movie
- play movie
- play done

The **Impatica for Director** player has the play and play done commands disabled to avoid potential problems in branching between movies.

7.15.4 Variables and Data Types

The **Impatica for Director** player supports global and local variables. Unlike Director, however, Java treats variables as specific data types.

These Director data types are built into Java and are supported by the **Impatica for Director** player:

- Booleans
- Characters
- Integers
- Floating-point numbers
- Strings

These Director data types are not built into Java. However, they are supported by the **Impatica for Director** player:

- Symbols
- Lists

The following data types are not supported by the **Impatica for Director** player:

- Member references
- Sprite references

7.15.5 Strings

The **Impatica for Director** player supports most Director features for working with strings. You can use Lingo to:

- Concatenate strings using & and &&;
- Identify specific substrings of characters within strings by using chars() and offset;
- Determine a string's contents by using charToNum(), numToChar() and length();
- Change a string's type by using string() and value().

The **Impatica for Director** player supports all Lingo for specific constants. The only exception is ENTER, which should not be used for cross-platform applications because it applies only to the Macintosh.

Chunk Expressions

The **Impatica for Director** player supports most of the Lingo text chunk expressions that identify parts of a field cast member. Specifically, the following Lingo is supported:

- Char
- Item
- Line
- Word

However, the following Lingo is **not** supported by the **Impatica for Director** player:

- last
- number (chunk expression)
- delete
- hilite
- itemDelimiter

- put ... after
- put ... before

Double-byte Characters

The **Impatica for Director** player does not support double-byte international characters in fields or within strings in Lingo statements. To display double-byte characters on the Stage, put the double-byte characters into a text or field cast member and then convert them to a bitmap.

Alerts

The **Impatica for Director** player supports the alert command.

7.15.6 Lists

The **Impatica for Director** player supports most Lingo associated with lists, including the following:

- add
- addProp
- append
- count
- deleteAt
- duplicate(list)
- getaProp
- getAt
- getOne
- ilk
- list
- listP
- max

- min
- setaProp
- setAt
- sort

However the **Impatica for Director** player does not currently support the following Lingo related to lists:

- addAt
- deleteProp
- findPos
- findPosNear

7.15.7 Using Rects and Points

The values for rects and points are in list form, but Director does not consider rects and points as linear or property lists. Points and rects are distinct data types.

The values for rects and points are integers or real numbers.

7.15.8 Reserved Terms

There are no additional reserved words when using Impatica for Director.

7.15.9 Operators

The **Impatica for Director** player supports all operators that are available in Director, including arithmetic and conditional operations.

7.15.10 Data and Time

The **Impatica for Director** player supports the following elements for measuring time:

- date;

- onIdle event handler;
- ticks function;
- startTimer command; and
- timer property.

However, it does not support basic time function.

The **Impatica for Director** player does not support the following Lingo that detects and responds when there has been no keyboard or mouse activity for a given length of time:

- lastClick, lastEvent, and lastRoll;
- the on timeout event handler.

8 Building a Movie for Internet Delivery

8.1 Overview

Director movies that are converted using **Impatica for Director** will play consistently and reliably over the Internet provided that the movie is adapted to conform to the constraints of Java and that the movie itself is designed for streaming delivery. This topic describes how to adapt Director movies for efficient and reliable delivery:

- Score control, including animation, navigation, sounds, tempos, transitions and palettes;
- Behaviors;
- Keyboard and mouse input, including cursor types;
- Path and file names;
- Memory management;
- Stage size and color;
- Computer and monitor control; and
- User interface.

8.2 Animation

The **Impatica for Director** player performs most animations controlled by the Score or Lingo. However, the player does not support sprite rotation or skewing.

The Lingo elements typically used to animate sprites are available, except for the centerRegPoint and quad properties.

Because Java does not generate images as quickly as native code, Java's animation may be slower than in native Director, especially on slower processors. Always test your applets on all target platforms.

8.3 Navigation

The **Impatica for Director** player supports most of the Lingo elements used for navigation.

Navigating Between frames and Movies

The **Impatica for Director** player has the play and play done commands disabled to avoid potential problems in branching between movies.

When an **Impatica for Director** movie is played, the **Impatica for Director** player is normally downloaded as part of the movie unless the player is still in cache from playing a previous movie. When playing multiple movies, either in conjunction with one another or independently, you can avoid downloading the player applet again depending on how you set up you server's file system.

Navigation between frames of a single movie must be designed very carefully to avoid delays between the source and destination of a branch.

The **Impatica for Director** player loads elements in a linear fashion. If a movie jumps ahead, all of the sound and graphic elements appearing in the score during the skipped portion of the movie must be read prior to the target portion of the movie being available to be played.

In some instances, it may be necessary to separate the branch destination as a second movie and set up branching between the two (or more) movies.

8.4 Narration

All audio must be in the format supported by Java 1.0.2, namely MuLaw, 8-bit, 8kHz AU format, colloquially known as SunAU format.

Impatica for Director will correctly read .wav or .aif format audio and convert to SunAU format.

Sound Quality

Good quality audio delivery over the Internet depends to a large extent on the quality of the original sound clip. Compression is maximized when quiet periods between phrases, clauses and sentences are replaced with "pure silence".

Impatica for Director provides three levels of audio compression and corresponding quality:

- no additional compression (standard SunAU compression)

- Enhanced compression
- 4-bit compression
- 3-bit compression
- 2 bit compression

8.5 Palettes

The browser controls the palette for the entire web page. The **Impatica for Director** player cannot alter the movie's palette or perform any palette effects on cast members. However, at true color (16-bit and above), all colors may be rendered.

For the most reliable color when authoring a movie, use a standard web palette.

Impatica for Director does not support palette color cycling.

Impatica for Director does support the palette cast member.

8.6 Keyboard and Mouse Input

Keyboard and mouse behavior in an Impatica-converted movie may be slightly different from original Director movies.

Keyboard Input in an Applet

Keyboard input differs in **Impatica for Director** in the following ways:

- No key event reaches the player unless the applet has focus. The user must click in the applet to give the applet focus before entering characters from the keyboard.
- Pressing a modifier key returns TRUE only if the user presses the key in combination with a regular key. For example, the controlDown returns a FALSE when only the Control key is pressed. This behavior is different from playback in Director.

Impatica for Director does support the keyPressed, keyCode and key properties. Therefore the **Impatica for Director** player can detect keys during a repeat loop.

Mouse Input in an Applet

Mouse input differs in **Impatica for Director** in the following ways:

- The player applet does not receive mouse events if the cursor is outside the applet;
- The **Impatica for Director** player does not support right-mouse button events;
- The **Impatica for Director** player does detect mouse movement events or update the mouseDown, mouseUp, mouseH or mouseV properties while Lingo is in a repeat loop, however, it is advisable to call updateStage within that loop.
- On a Macintosh platform, Java performance is slower than on a Windows platform. As a result, mouse clicks may take much long to register than on a Windows platform.

8.7 Cursor Types

The **Impatica for Director** player currently supports only the Arrow cursor type.

8.8 Path and File Names

By their very nature, Java applets are designed to run on any Java-enabled platform, including Windows, Macintosh, Unix, Linux, OS/2, set-top boxes and the emerging handheld devices. The **Impatica for Director** player applet can be launched and the associated Impatica content can be streamed from any HTTP server. No special streaming server software is required.

It is therefore important that to specify pathnames and file names that are meaningful on your server platform(s). The following conventions should be followed for linked cast members:

- Do not use pathnames that begin with HTTP or FTP. **Impatica for Director** does not support such pathnames.
- Make sure the linked cast members are stored in the same folder as the movie or in a sub-folder of the movie's folder. Then use relative pathnames to define paths to the linked cast members.

- Do not use spaces in file or folder names; use underscores instead. Director does not support long file names in a Windows environment and blanks are not permitted in Unix pathnames.

- Some servers, e.g., Unix, are case sensitive.

8.9 Memory Management

The **Impatica for Director** player does not support the pre-load command. However, an acceptable and perhaps even preferred solution is to allocate a specific channel, say channel 2, as the pre-load channel. Any cast members that are not specifically referenced in the Score, for example, cast members that are referenced only in Lingo, will not be loaded until the end of the movie. These cast members should be placed in the pre-load channel at appropriate frames in the score to ensure that they will be loaded by the time they are referenced.

8.10 Stage Size and Color

The **Impatica for Director** player allows some control over the size and color of the Stage.

- The APPLET tag in the HTML page that calls the applet sets the size of the Stage through the WIDTH and HEIGHT parameters.

- The stage color will be as set within Modify | Movies | Properties menu.

The stageBottom, stageLeft, stageRight and stageTop functions are **not** supported. It is not possible to determine the applet's location within a Web page through **Impatica for Director**.

8.11 Computer and Monitor Control

Due to security restrictions imposed by Java, the **Impatica for Director** player can not test or set properties in the user's computer system. For example, you cannot use Lingo to test or change the computer's color depth, determine the computer type or check whether the system has more than one sound channel.